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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Gerlach et al.

RIAL NUMBER: 09/964,956 EXAMINER: Not Yet Assigned

FILING DATE: September 26, 2001 ART UNIT: 1614

FOR: Novel Proteins and Nucleic Acids Encoding Same

BOX IDS

Assistant Commissioner for Patents

Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, Applicant hereby makes of record the documents listed on the attached modified Form PTO-1449 (submitted in duplicate) in the above-identified application, copies of which are submitted herewith. The order of presentation of the references should not be construed as an indication of the importance of the references.

This Information Disclosure Statement is being filed before the mailing date of the first Office Action on the merits, in the above-identified case. Accordingly, no fee or certification is believed due at this time.

It is respectfully requested that the Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims, and signs the enclosed Form PTO-1449 to evidence that the cited information has been fully considered by the PATENT AND TRADEMARK OFFICE during the examination of this application.

Please charge any additional fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311 (Reference No. 21402-124 (Cura-424)).

Respectfully submitted,

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Application Number 09/964,956 Modified Form 1449/PTO Filing Date 09/26/01 INFORMATION DISCLOSURE **First Named Inventor** Gerlach STATEMENT BY APPLICANT Group Art Unit 1614 **Examiner Name** Not Yet Assigned (use as many sheets as necessary) Attorney Docket Number 21402-124 (Cura-424)

U.S. PATENT DOCUMENTS							
Exam Initials	Cite No.	U.S. Patent Document No.	Issue Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date If Appropriate
	A1						

	•		FOREIGN PATENT DOCUMENTS		
Exam Initials	Cite No.	Foreign Patent Document Office Number	Name of Patentee(s) or Applicant(s)	Date of Publication	Translation Yes No
	B1				

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS				
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.			
	C1	GenBank Accession Number: XP_010150 (December 11, 2001)			
	C2	GenBank Accession Number: XP_043060 (December 10, 2001)			
	C3	GenBank Accession Number: XP_045786 (December 10, 2001)			
	C4	Adams (1996). "Serial analysis of gene expression: ESTs get smaller." <i>Bioessays</i> 18(4): 261-262.			
	C5	GenBank Accession Number: B55886 (November 11, 1997)			
	C6	Alderborn et al. (2000). "Determination of single-nucleotide polymorphisms by real-time pyrophosphate DNA sequencing." <i>Genome Res</i> 10(8): 1249-1258.			
·	C7	Arnold et al. (2000). "Selective developmental regulation of gene expression for insulin-like growth factor-binding proteins in mouse spinal cord." Spine 25(14): 1765-1770.			
	C8	Baxter (1995). "Insulin-like growth factor binding proteins as glucoregulators." <i>Metabolism</i> 44(10 Suppl 4): 12-17.			
	C9	Bonen (2000). "Lactate transporters (MCT proteins) in heart and skeletal muscles." <i>Med Sci Sports Exerc</i> 32(4): 778-789.			
	C10	Bouillet et al. (1997). "Developmental expression pattern of Stra6, a retinoic acid-responsive gene encoding a new type of membrane protein." <i>Mech Dev</i> 63(2): 173-186.			
	C11	Boultwood et al. (1991). "Loss of both CSF1R (FMS) alleles in patients with myelodysplasia and a chromosome 5 deletion." <i>Proc Natl Acad Sci U S A</i> <u>88</u> (14): 6176-6180.			
	C12	GenBank Accession Number: AAC60070 (January 14, 1997)			
	C13	GenBank Accession Number: BAB32241 (July 5, 2001)			
	C14	GenBank Accession Number: AAK07661 (March 22, 2001)			
	C15	GenBank Accession Number: AF338650 (March 22, 2001)			
	C16	GenBank Accession Number: AC002563 (September 26, 1997)			
	C17	GenBank Accession Number: O14578 (May 30, 2000)			

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	OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS				
Exam Initials	Cite No.	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.			
VE TE	C18	Corse et al. (1999). "Preclinical testing of neuroprotective neurotrophic factors in a model of chronic motor neuron degeneration." <i>Neurobiol Dis</i> <u>6</u> (5): 335-346.			
M y	C19	De Ferrari and Inestrosa (2000). "Wnt signaling function in Alzheimer's disease." Brain Res Rev 336			
AFTE OF	C20	Dearry et al. (1990). "Dopamine induces light-adaptive retinomotor movements in bullfrog cones via D2 receptors and in retinal pigment epithelium via D1 receptors." <i>J Neurochem</i> 54(4): 1367-1378.			
	C21	GenBank Accession Number: AF169411 (September 19, 2000)			
	C22	GenBank Accession Number: NP_075229 (January 31, 2001)			
	C23	Deguchi et al. (2000). "PAPIN. A novel multiple PSD-95/Dlg-A/ZO-1 protein interacting with neural plakophilin-related armadillo repeat protein/delta-catenin and p0071." <i>J Biol Chem</i> 275(38): 29875-29880.			
	C24	del Pozo et al. (1999). "Rho GTPases control migration and polarization of adhesion molecules and cytoskeletal ERM components in T lymphocytes." <i>Eur J Immunol</i> 29(11): 3609-3620.			
	C25	GenBank Accession Number: AF086824 (November 11, 1998)			
	C26	Di Cunto et al. (1998). "Citron rho-interacting kinase, a novel tissue-specific ser/thr kinase encompassing the Rho-Rac-binding protein Citron." <i>J Biol Chem</i> <u>273</u> (45): 29706-29711.			
··	C27	Di Cunto et al. (2000). "Defective neurogenesis in citron kinase knockout mice by altered cytokinesis and massive apoptosis." <i>Neuron</i> 28(1): 115-127.			
	C28	GenBank Accession Number: O75882 (August 20, 2001)			
-	C29	Duke-Cohan et al. (1998). "Attractin (DPPT-L), a member of the CUB family of cell adhesion and guidance proteins, is secreted by activated human T lymphocytes and modulates immune cell interactions." <i>Proc Natl Acad Sci U S A</i> <u>95</u> (19): 11336-11341.			
	C30	Duke-Cohan et al. (2000). "Attractin: a cub-family protease involved in T cell-monocyte/macrophage interactions." Adv Exp Med Biol 477: 173-185.			
	C31	Fraser et al. (2001). "Presenilin function: connections to Alzheimer's disease and signal transduction Biochem Soc Symp <u>67</u> : 89-100.			
	C32	Fujisawa et al. (1997). "Function of a cell adhesion molecule, plexin, in neuron network formation." <i>Dev Neurosci</i> 19(1): 101-105.			
	C33	Grandy et al. (1990). "A human D1 dopamine receptor gene is located on chromosome 5 at q35.1 a identifies an EcoRI RFLP." <i>Am J Hum Genet</i> <u>47</u> (5): 828-834.			
	C34	GenBank Accession Number: AAD25372 (April 16, 1999)			
·	C35	GenBank Accession Number: AF119821 (April 16, 1999)			
	C36	Gunn et al. (1999). "The mouse mahogany locus encodes a transmembrane form of human attraction Nature 398 (6723): 152-156.			
	C37	Hall et al. (1999). "Determinants of circulating insulin-like growth factor-I." <i>J Endocrinol Invest</i> 22(5): 48-57.			
	C38	GenBank Accession Number: AAK54730 (May 21, 2001)			
	C39	GenBank Accession Number: AF369900 (May 21, 2001)			
	C40	Hornig et al. (1999). "An infection-based model of neurodevelopmental damage." <i>Proc Natl Acad Sci U S A</i> <u>96</u> (21): 12102-12107.			
	C41	Isshiki and Anderson (1999). "Calcium signal transduction from caveolae." Cell Calcium 26: 201-208			
	C42	Jackson (1999). "The mahogany mouse mutation: further links between pigmentation, obesity and the immune system." <i>Trends Genet</i> 15(11): 429-431.			
	C43	Jezior et al. (2001). "Dependency of detrusor contractions on calcium sensitization and calcium entr through LOE-908-sensitive channels." <i>Br J Pharmacol</i> <u>134</u> (1): 78-87.			
	C44	GenBank Accession Number: D86949 (March 31, 2000)			

Page 3 cm

Express Mail No.: EV054296343US Date of Deposit: January 25, 2002

		OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS	<u>;</u>
Exam nitials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.	l I J
6 2	C45	SPTREMBL Accession Number: Q9H5Y7 (March 1, 2001)	<u>-</u>
	C46	GenBank Accession Number: AK026427 (September 29, 2000)	<u> </u>
2002	C47	SPTREMBL Accession Number: Q9H5Y7 (March 1, 2001) GenBank Accession Number: AK026427 (September 29, 2000) GenBank Accession Number: NP_115605 (December 10, 2001)	5
S. S. S. S.	C48	Kone, B. C. (2000). "Protein-protein interactions controlling nitric oxide synthases." <i>Acta Physiol Scand</i> 168(1): 27-31.	∌,
	C49	Krieger, M. (1999). "Charting the fate of the "good cholesterol": identification and characterization of the high-density lipoprotein receptor SR-BI." <i>Annu Rev Biochem</i> 68: 523-558.	f
	C50	Krushkal et al. (1998). "Linkage and association of adrenergic and dopamine receptor genes in the distal portion of the long arm of chromosome 5 with systolic blood pressure variation." <i>Hum Mol Gen</i> 7(9): 1379-1383.	ıe
	C51	GenBank Accession Number: BAB21018 (January 18, 2001)	
	C52	Lu et al. (1999). "Distribution of Mahogany/Attractin mRNA in the rat central nervous system." FEBS Lett 462(1-2): 101-107.	3
	C53	GenBank Accession Number: AAL54730 (December 28, 2001)	
	C54	GenBank Accession Number: AAC27933 (July 31, 1998)	
	C55	GenBank Accession Number: P49025 (May 30, 2000)	
- 1	C56	Martins, V. R. (1999). "A receptor for infectious and cellular prion protein." <i>Braz J Med Biol Res</i> 32(7 853-859.	⁷):
	C57	GenBank Accession Number: AAK11226 (February 19, 2001)	_
	C58	GenBank Accession Number: AF326591 (February 19, 2001)	
	C59	Mewar and McMorris (1997). "Expression of insulin-like growth factor-binding protein messenger RNAs in developing rat oligodendrocytes and astrocytes." <i>J Neurosci Res</i> 50(5): 721-728.	
	C60	GenBank Accession Number: AAF06741 (November 9, 1999)	
	C61	GenBank Accession Number: AF170701 (November 9, 1999)	
	C62	GenBank Accession Number: JC7160 (May 11, 2000)	
	C63	SWALL(SPTR) Accession Number: Q9QYS2 (May 1, 2000)	
	C64	Moller et al. (2000). "The acid-labile subunit of the ternary insulin-like growth factor complex in cirrhosis: relation to liver dysfunction." <i>J Hepatol</i> 32(3): 441-446.	
	C65	Morita et al. (1998). "Expressions of a 68kDa-glycoprotein (GP68) and laminin in the mesodermal tissue of the developing mouse embryo." <i>Okajimas Folia Anat Jpn</i> 75(4): 185-195.	
	C66	Moroldo et al. (1998). "Cross-cultural adaptation and validation of an Argentine Spanish Version of the Stanford Childhood Health Assessment Questionnaire." <i>Arthritis Care Res</i> 11(5): 382-390.	th
	C67	Murakami et al. (2001). "Differential expression of plexin-A subfamily members in the mouse nervous system." Dev Dyn 220(3): 246-258.	ıs
	C68	GenBank Accession Number: BAA20760 (October 6, 2001)	
	C69	GenBank Accession Number: AB020655 (June 16, 1999)	
	C70	GenBank Accession Number: O94991 (August 20, 2001)	
	C71	GenBank Accession Number: NP_036202 (February 3, 2001)	_
	C72	GenBank Accession Number: O94933 (August 20, 2001)	
	C73	Nagase et al. (1999). "Prediction of the coding sequences of unidentified human genes. XIII. The complete sequences of 100 new cDNA clones from brain which code for large proteins in vitro." DNA Res 6(1): 63-70.	4
	C74	GenBank Accession Number: AB023166 (June 16, 1999)	_

Page 4 of 5

Express Mail No.: EV054296343US
Date of Denosit: January 25, 2002

		OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS	-
Exam Initials	Cite No.	OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc. GenBank Accession Number: BAA76793 (June 16, 1999)	-
	C75	GenBank Accession Number: BAA76793 (June 16, 1999)	0
Page 1	C76	GenBank Accession Number: BAA96055 (February 22, 2001)	<u> </u>
- G	C77	GenBank Accession Number: BAB13376 (February 22, 2001)	₹
2002	C78	SWALL(SPTR) Accession Number: Q9WU60 (October 16, 2001)	1800/200
S. S.	C79	GenBank Accession Number: BAA32308 (August 13, 1998)	
ARM	C80	GenBank Accession Number: I51553 (July 21, 2000)	
	C81	Ohta et al. (1995). "Plexin: a novel neuronal cell surface molecule that mediates cell adhesion homophilic binding mechanism in the presence of calcium ions." <i>Neuron</i> <u>14</u> (6): 1189-1199.	via a
	C82	Okamoto et al. (1998). "Expression and purification of the extracellular ligand binding region of metabotropic glutamate receptor subtype 1." <i>J Biol Chem</i> <u>273</u> (21): 13089-13096.	
	C83	Ostrom et al. (2000). "Stoichiometry and compartmentation in G protein-coupled receptor signal implications for therapeutic interventions involving G(s)." <i>J Pharmacol Exp Ther</i> 294(2): 407-412	aling 2.
	C84	GenBank Accession Number: T46279 (February 4, 2000)	
	C85	Pardridge, W. M. (1999). "Blood-brain barrier biology and methodology." J Neurovirol 5(6): 556	
	C86	Pasterkamp et al. (1999). "Semaphorins and their receptors in olfactory axon guidance." Cell N (Noisy-le-grand) 45(6): 763-779.	101 E
	C87	GenBank Accession Number: CAB65788 (January 11, 2000)	
,	C88	Rohm et al. (2000). "Plexin/neuropilin complexes mediate repulsion by the axonal guidance sig semaphorin 3A." <i>Mech Dev</i> <u>93</u> (1-2): 95-104.	ınal
	C89	Rosenfeld et al. (1999). "The insulin-like growth factor binding protein superfamily: new persperent pediatrics 104(4 Pt 2): 1018-1021.	ctive
	C90	GenBank Accession Number: CAC32456 (February 23, 2001)	
	C91	Shan et al. (1998). "Heterogeneity of anti-phospholipid and anti-endothelial cell antibodies." <i>J Autoimmun</i> 11(6): 651-660.	
	C92	Smitt et al. (1998). "[Immunology in the clinical practice. XVI. Paraneoplastic syndromes of the nervous system: pathogenesis and diagnosis]." <i>Ned Tijdschr Geneeskd</i> <u>142(29)</u> : 1652-1658. (ABSTRACT ONLY)	
	C93	Spriggs (1999). "Shared resources between the neural and immune systems: semaphorins joir ranks." <i>Curr Opin Immunol</i> <u>11</u> (4): 387-391.	1 the
	C94	GenBank Accession Number: AF154831 (August 13, 2001)	
	C95	GenBank Accession Number: NP_064471 (November 1, 2000)	
	C96	SPTREMBL Accession Number: Q9WV78 (November 1, 1999)	
	C97	GenBank Accession Number: NP_112600 (April 24, 2001)	
	C98	GenBank Accession Number: NP_115774 (January 8, 2002)	
	C99	SPTREMBL Accession Number: Q9BX97 (June 1, 2001)	
	C100	Stan et al. (1999). "Isolation, cloning, and localization of rat PV-1, a novel endothelial caveolar protein." <i>J Cell Biol</i> <u>145(6)</u> : 1189-1198.	
	C101	Stan et al. (1999). "PV-1 is a component of the fenestral and stomatal diaphragms in fenestrate endothelia." <i>Proc Natl Acad Sci U S A</i> <u>96</u> (23): 13203-13207.	
	C102	Stan et al. (1997). "Immunoisolation and partial characterization of endothelial plasmalemmal v (caveolae)." <i>Mol Biol of Cell</i> <u>8</u> (4): 595-605.	esic
	C103	GenBank Accession Number: AAH09343 (July 12, 2001)	



Express Mail No.: EV054296343US Date of Deposit: January 25, 2002

		OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS	ň
Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.	TER
PE	C105	GenBank Accession Number: NP_000789 (October 26, 2001)	<u>~</u>
	C106	GenBank Accession Number: NP_000789 (October 26, 2001) Sunahara et al. (1990). "Human dopamine D1 receptor encoded by an intronless gene on chromosome 5." Nature 347(6288): 80-83. Takahashi et al. (1999). "Plexin-neuropilin-1 complexes form functional semaphorin-3A receptor Coll 90(1): 50-60.	00/29
200Z	¢ 107	Takahashi et al. (1999). "Plexin-neuropilin-1 complexes form functional semaphorin-3A receptor Cell 99(1): 59-69.	8
MAPA	C108	Tamagnone and Comoglio (2000). "Signalling by semaphorin receptors: cell guidance and beyor <i>Trends Cell Biol</i> <u>10(9)</u> : 377-383.	nd."
	C109	Tamagnone et al. (1999). "Plexins are a large family of receptors for transmembrane, secreted, a GPI-anchored semaphorins in vertebrates." <i>Cell</i> <u>99</u> (1): 71-80.	and
	C110	GenBank Accession Number: M92076 (April 27, 1993)	
	C111	GenBank Accession Number: P31422 (August 20, 2001)	
	C112	Tang et al. (2000). "Secreted and membrane attractin result from alternative splicing of the huma ATRN gene." <i>Proc Natl Acad Sci U S A</i> <u>97</u> (11): 6025-6030.	an
	C113	GenBank Accession Number: NP_036900 (November 1, 2000)	
	C114	Ueki et al. (2000). "Inactivation of the acid labile subunit gene in mice results in mild retardation of postnatal growth despite profound disruptions in the circulating insulin-like growth factor system." Natl Acad Sci U S A 97(12): 6868-6873.	of Pro
	C115	GenBank Accession Number: NP_033182 (January 7, 2002)	
	C116	Walsh et al. (2001). "Rho kinase regulates tight junction function and is necessary for tight junction assembly in polarized intestinal epithelia." <i>Gastroenterology</i> 121(3): 566-579.	on
	C117	Wassink et al. (2001). "Evidence supporting WNT2 as an autism susceptibility gene." Am J Med Genet 105(5): 406-413.	
	C118	GenBank Accession Number: M75867 (December 31, 1994)	
	C119	Wootton and Federhen (1996). "Analysis of compositionally biased regions in sequence databas Methods Enzymol 266: 554-571.	es.

* a copy of	thisreference is not provided as it was previous	sly cited by or submitted to the office in a prior application,
Serial No.	, filed	, and relied upon for an earlier filing date under
35 U.S.C.	§120 (continuation, continuation-in-part, and div	visional applications).

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